

A New Caddis-fly Genus from Victoria and Tasmania

(Philorheithridae: Trichoptera)

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Abstract

A new genus, *Ramiheithrus*, is described to include two species, *R. virgatus* sp. n. from North-eastern Victoria, and *R. kocinus* sp. n. from North-western Tasmania. The characteristic feature of the genus is the pectinate antennae.

Introduction

Investigations on invertebrate fauna in the Dartmouth dam inundation area and Mitta Mitta River catchment area in North-eastern Victoria have yielded many interesting distributional records and undescribed insect species. Among them are several specimens of a caddis fly of the family Philorheithridae having unusual antennae which are pectinate on the basal half and which resemble those of another undescribed species captured earlier at Corinna, North-western Tasmania. The two species were found to be closely related, but could not be attributed to any of the described genera. A new genus, *Ramiheithrus*, is here erected to contain the two species. Riek (1970) recorded a genus with plumed antennae.

The family Philorheithridae Mosely (1936) has an entirely southern distribution. Several genera are known from Australia and Tasmania, but the fauna is far from being fully investigated. A few other genera occur in New Zealand and South America.

Adult Philorheithridae have a wing span of 15-30 mm; an indistinct but rather constant wing pattern. The adults adopt a characteristic resting pose with wings and abdomen positioned at an angle to the substrate.

Genus *Ramiheithrus* gen. n.

Type species: *Ramiheithrus virgatus* gen. et sp. n.

Ocelli absent. Antennae about as long as anterior wing, basal half pectinate in male; first segment stout, as long as vertical diameter of eye, second segment very short, both simple, the following 15 or 16 segments with long lateral branches, becoming shorter distally, the segments of apical half simple. Male maxillary palp five-segmented; there are no pilifers in front of the face. Scutum and scutellum each with a pair of rounded warts. Anterior wing without longitudinal fold, apex broad obliquely truncate; forks 1, 2, 3 and 5 present, sclerotized area on the anal margin produced to a distinct lobe. Posterior wing with Sc and R1 merged for a short distance before separating and diverging; R1 terminates into R2 shortly before wing margin; forks 1, 2 and 5 present. Male genitalia characterized by dorsally produced hood-like seg. 9 and a short bilobed plate representing the inferior appendages. Lateral pores present on sternites 2 - 8.

Spurs 2:4:4

This genus resembles *Aphilorheithrus*, but is distinguished by the wing venation, well developed anal lobe on anterior wing, and the absence of pilifers in front of the head in the male. So far only two species are known to belong to this genus.

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KEY FOR SEPARATING SPECIES
(males only)

1. The trilobed plate above phallus with median lobe laterally compressed, much longer than lateral lobes; anterior wing fork 1 sessile *virgatus*
The trilobed plate above phallus with median lobe semicircular, shorter than lateral lobes, anterior wing fork 1 with footstalk *kocinus*

Ramiheithrus virgatus sp. n.

sp.n.

Figs. 1-4, 6-9

Greyish brown species with irregularly mottled anterior wings, a distinct pale oval spot close to wing margin within fork 3, smaller and less conspicuous ones between the veins above and below it. Usually there are 15-16 branched antennal segments, although in some specimens there are two branches on seg. 3; the base of each lateral branch dark brown, all unbranched apical segments pale, yellowish. Maxillary palp five-segmented; seg. 1 short, apically with well developed nodule, the subsequent segments slender.

♂ genitalia with seg. 9 dorsally produced into large centrally clefted hood, inner surface on either side of the

cleft densely covered with short pointed spines. A trilobed hood-like plate covers the phallus dorsally; the median, laterally compressed lobe, longer than the lateral lobes. Phallus in lateral view triangular, pointed apically. A broad, bilobed plate constitutes fused inferior appendages, each lobe in lateral view evenly rounded.

♀ — unknown.

Length of anterior wing: ♂ 10-11 mm.

Type material: Holotype ♂ (T4558), 8

♂ paratypes (T4559—T4566) McKay creek, Sassafras Gap, Vic. 2 Feb. 1974. A Neboiss (NMV). All specimens preserved in alcohol.

Distribution: North-eastern Victoria

Ramiheithrus kocinus sp. n.

Figs. 5, 10-12

Blackish species with faint paler irregular mottling on anterior wings, of which the most conspicuous is a pale area at, and just behind the distal end of discoidal cell. Antennae dark greyish-brown throughout with 15 to 16 branched segments. Maxillary palp five-segmented, seg. 1 short with well developed apical nodule.

♂ genitalia with seg. 9 dorsally produced into a large deeply clefted hood, inner surface of each side covered with a group of short pointed spines. A trilobed hood-like plate above the phallus; the median lobe broad semicircular, shorter than the lateral lobes. Phallus broad, apex

rounded. A broad bilobed plate constitutes fused inferior appendages; each lobe in lateral view somewhat oval with acute upper angle.

♀ - unknown.

Length of anterior wing: ♂ 9 mm.

Type material: Holotype ♂ (T4567), 1

♂ paratype (T4568) Corinna, N.W. Tas. (small creek in forest), 5. Nov. 1972 A. Neboiss and G. Kocins (NMV). Specimens preserved in alcohol.

Distribution : North-western Tasmania.

The species is named after Mr. G. Kocins, a friend and companion on field work over many years.

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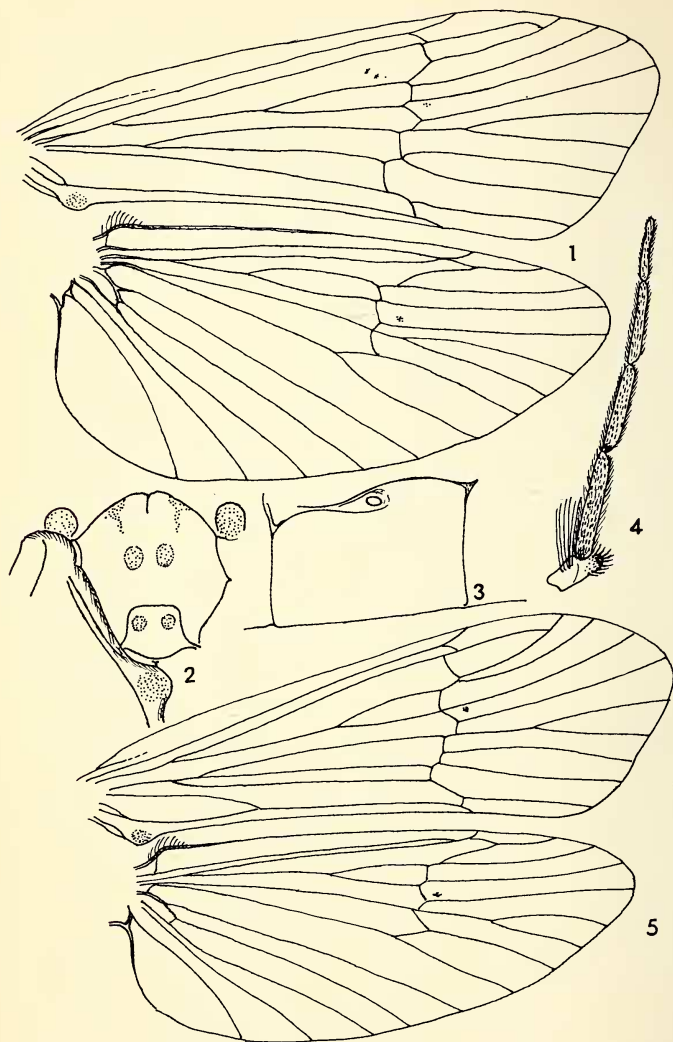


Figure A

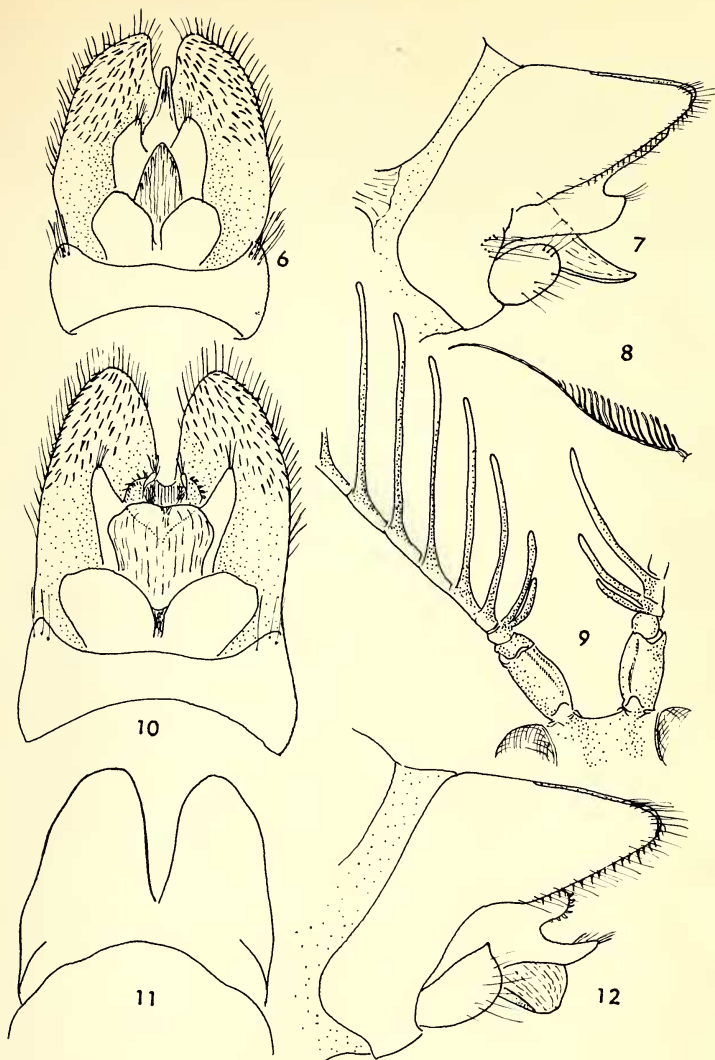


Figure B

Figure A

Figs. 1-4: *Ramiheithrus virgatus* gen. et sp. n. ♂
 1. Wing venation; 2. Scutum and scutellum showing warts and base of anterior wing with position of anal lobe;
 3. Sternite 6 showing lateral pore; 4. Maxillary palp. 5. *Ramiheithrus kocinus* sp. n. ♂ wing venation.

Figure B

Figs. 6-9 - *Ramiheithrus virgatus* gen. et sp. n. 6. - Male genitalia ventral; 7. - male genitalia lateral; 8. - antenna; 9. - antenna; enlarged basal section; 10-12 - *Ramiheithrus kocinus* sp. n. 10. - male genitalia ventral; 11. - dorsal outline of segment 9.; 12.- male genitalia lateral.